

REMARKS

This responds to the Office Action mailed on October 18, 2005, and the references cited therewith.

No claims were amended, added or cancelled; as a result, claims 65-75 remain pending in this application.

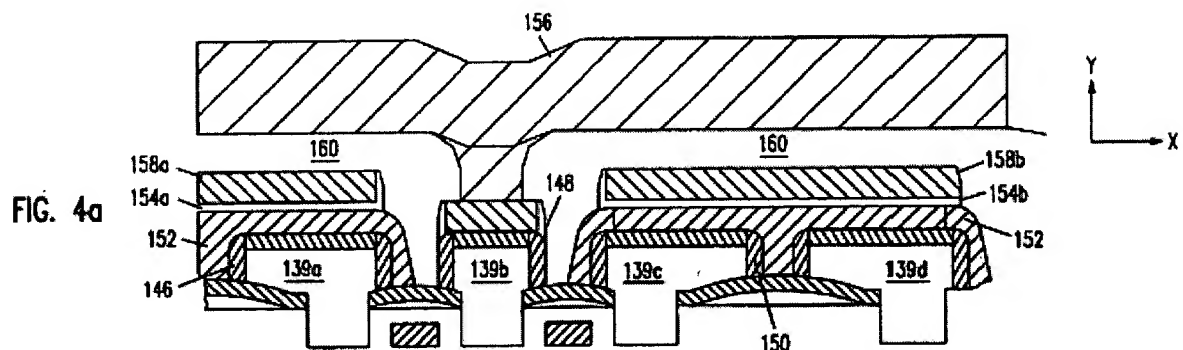
§102 Rejection of the Claims

Claim 65 was rejected under 35 U.S.C. § 102(b) for anticipation by Abt et al. (U.S. 5,401,680).

Applicant appreciates the Examiners concise Office Action and the provided figure from Abt (repeated herein). Applicant, however, traverses the Examiner's statement that the reference teaches the claimed elements of:

1. exposing a lateral surface of the conductive plug and the lower surface of the conductive line; and
2. forming a single diffusion barrier after forming the conductive plug and the conductive line, with at least a first portion of the diffusion barrier between the lower surface of the conductive line and the substrate.

Figure 4a of Abt:



clearly shows that a dielectric layer 160 is formed before conductor 156. Specifically, Figure 1b describes process steps including forming a second layer top electrode 36, second

layer etch 38, deposit dielectric & planarize 40, via mask/etch 42, metalization 44 and passivation 46. There is no teaching or suggestion that the dielectric layer 160 formed at step 40 is subsequently removed prior to passivation step 46.

Thus, the reference cannot teach “exposing a lateral surface of the conductive plug and the lower surface of the conductive line.” Further, if the dielectric is not removed to expose the lower surface of the conductive line, the reference cannot teach “forming a single diffusion barrier after forming the conductive plug and the conductive line, with at least a first portion of the diffusion barrier between the lower surface of the conductive line and the substrate.”

Applicant notes that Figure 10a of the reference does not label dielectric layer 160, but the supporting specification at column 6, lines 47-48 clearly state the “[t]he process continues from here with step 40.” As such, the process steps remain the same for both embodiments relative to the dielectric and conductor.

Claim Objections

Claims 66-70 were objected to as being dependent upon a rejected base claim, but were indicated to be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Applicant has elected to not amend these claims into independent form based upon the above provided remarks for claim 65.

Allowable Subject Matter

Claims 71-75 were allowed.

CONCLUSION

Applicant respectfully submits that the claims are in condition for allowance, and notification to that effect is earnestly requested. The Examiner is invited to telephone Applicant's attorney at (208) 331-4537 to facilitate prosecution of this application.

If necessary, please charge any additional fees or credit overpayment to Deposit Account No. 19-0743.

Respectfully submitted,

KIE Y. AHN ET AL.

By their Representatives,

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Date 1/17/06

By 

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CERTIFICATE UNDER 37 CFR 1.8: The undersigned hereby certifies that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail, in an envelope addressed to: Mail Stop Amendment, Commissioner of Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on this 17 day of January, 2006.

KATE GANNON

Name



Signature